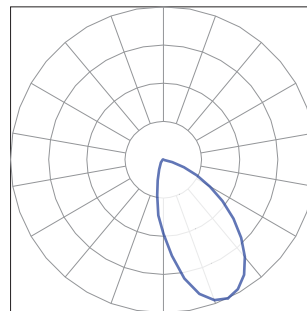
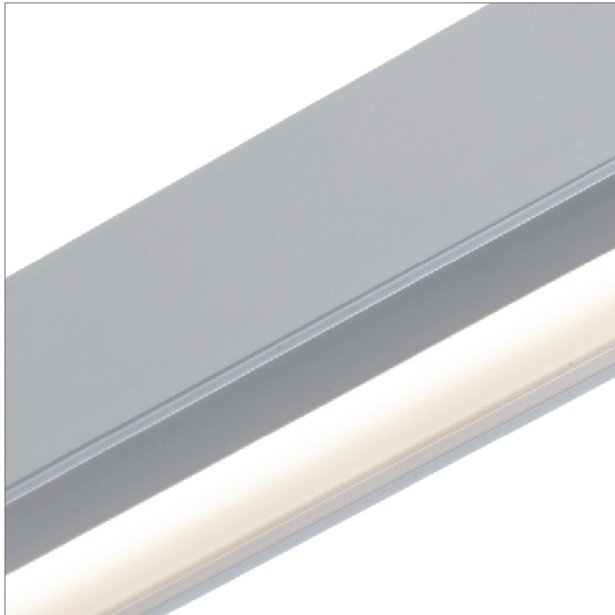


# BoxRail™ | 107

107-BX-X-4-48-X-X-X-X-X-Z-HO-359-A1-X-AL / WH-X

The performance data in black text is confirmed through third party testing (see the following Light Laboratory report for details). The performance data in grey text is calculated by Vode, for reference only.

Technical Support: (707) 996-9898



## Details

Rail Type / Length	BoxRail, 48"
LED Type	Zipper Board
Lumen Output	High Output
Color Temperature	3500K, 90+ CRI
Optics	85° Asymmetric Lens

## Performance Summary

	2700K	3000K	3500K	4000K
Color Temperature	2700K	3000K	3500K	4000K
Efficacy - Lumens per Watt	65	67	69	70
Total Lumens, 4' rail (1219mm)	3195	3296	3363	3430
Lumens per foot (305mm)	799	824	841	858
Input Power (W), 4' rail (1219mm)	49.2	49.2	49.2	49.2
Watts per foot (305mm)	12.4	12.4	12.4	12.4
CRI	-	-	96	-

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**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_BX\_HO\_359\_A1.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L071704225 (SOURCE REPORT FOR REFERENCE)  
[TESTLAB] REPORT BASED ON DATA PRODUCED BY NVLAP ACCREDITED LAB  
[ISSUEDATE] 11/1/2017  
[MANUFAC] Vode Lighting  
[LUMCAT] 707-Z2-48-Z-HO-359-A1-AL  
[LUMINAIRE] ZipTwo LED, 48", 3500K, 90 CRI, zipper board,  
[MORE] 85° white asymmetric lens, high output  
[TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3367
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	68
Total Luminaire Watts	49.22
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.94
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.06 ft
Luminous Width (90-270)	4.02 ft
Luminous Height	0.00 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	106691	93324	42091
55	97319	80891	32106
65	82729	66127	25202
75	67265	52281	19898
85	58512	41701	12941

CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
<b>0</b>	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297
<b>5</b>	1546.161	1545.191	1542.125	1537.780	1531.339	1522.958	1513.452	1501.696	1488.484	1474.148
<b>10</b>	1789.728	1787.788	1782.627	1774.906	1762.975	1747.998	1730.441	1708.364	1682.911	1655.383
<b>15</b>	1956.936	1954.841	1949.196	1939.864	1925.683	1907.641	1885.098	1857.375	1825.327	1789.243
<b>20</b>	2051.337	2049.397	2043.596	2033.780	2019.598	2000.431	1977.403	1947.915	1912.471	1872.197
<b>25</b>	2085.170	2083.230	2077.585	2068.409	2053.917	2034.750	2010.907	1980.934	1944.365	1901.995
<b>30</b>	2063.248	2061.153	2056.012	2046.816	2032.965	2013.487	1989.645	1958.217	1920.037	1875.747
<b>35</b>	1989.160	1987.220	1982.874	1974.163	1960.797	1941.474	1916.332	1883.003	1841.758	1794.558
<b>40</b>	1863.816	1862.536	1858.501	1850.450	1837.568	1818.071	1791.338	1756.049	1711.604	1660.524
<b>45</b>	1692.107	1691.622	1688.227	1681.146	1669.060	1648.612	1621.219	1583.680	1535.529	1480.104
<b>50</b>	1483.324	1482.684	1480.104	1473.023	1461.092	1441.439	1412.611	1373.307	1322.886	1265.850
<b>55</b>	1251.998	1251.688	1248.933	1242.977	1231.551	1212.539	1184.021	1144.387	1096.876	1040.655
<b>60</b>	1013.592	1013.262	1011.012	1006.006	995.860	977.508	951.240	916.126	873.272	824.461
<b>65</b>	784.187	784.032	782.421	777.901	769.365	753.903	732.001	701.562	668.039	626.814
<b>70</b>	577.034	576.704	575.249	571.873	564.947	552.706	535.459	512.102	484.088	453.960
<b>75</b>	390.483	390.328	388.873	386.138	380.977	371.956	359.560	343.283	323.961	303.494
<b>80</b>	233.576	233.421	232.296	230.200	226.340	220.209	212.314	201.857	189.771	177.355
<b>85</b>	114.382	114.053	113.083	111.317	108.582	105.032	100.201	94.400	87.960	81.519
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Horizontal Angles  
 Angles

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
<b>0</b>	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297
<b>5</b>	1457.871	1440.004	1421.632	1402.135	1382.172	1359.765	1338.018	1316.271	1293.883	1270.855
<b>10</b>	1623.644	1588.200	1551.146	1511.027	1468.677	1421.302	1374.917	1327.872	1278.266	1228.796
<b>15</b>	1746.718	1699.188	1647.797	1591.751	1530.854	1461.421	1392.804	1321.916	1247.168	1173.060
<b>20</b>	1823.872	1768.291	1707.239	1639.261	1564.513	1477.213	1389.098	1297.103	1199.812	1103.162
<b>25</b>	1850.624	1790.853	1723.845	1647.972	1563.233	1462.391	1359.280	1250.078	1133.270	1018.578
<b>30</b>	1822.106	1759.114	1689.197	1608.648	1517.487	1408.265	1295.008	1174.030	1044.186	918.706
<b>35</b>	1737.697	1671.814	1599.317	1516.673	1422.602	1314.175	1194.012	1067.718	933.528	803.839
<b>40</b>	1599.317	1530.369	1455.466	1372.492	1276.656	1173.545	1056.427	933.838	803.839	680.610
<b>45</b>	1417.286	1344.148	1268.585	1187.571	1096.546	997.470	892.924	782.092	667.554	556.082
<b>50</b>	1202.393	1131.660	1057.727	979.428	899.850	812.220	710.738	630.345	533.054	444.609
<b>55</b>	980.243	915.486	848.634	780.171	707.828	640.491	564.618	489.404	413.045	346.678
<b>60</b>	768.725	707.343	660.803	604.737	549.330	491.014	431.883	373.896	318.160	267.254
<b>65</b>	583.630	540.950	497.125	453.785	411.590	368.736	322.835	280.136	238.892	200.887
<b>70</b>	421.737	390.483	358.590	327.336	296.723	265.955	233.906	203.137	172.854	149.011
<b>75</b>	281.746	260.639	240.036	218.289	197.977	177.529	155.937	135.470	115.508	97.951
<b>80</b>	164.143	151.417	138.380	126.139	114.053	101.811	89.240	76.999	65.397	55.736
<b>85</b>	74.418	67.822	61.052	54.766	48.481	42.214	36.084	30.128	25.298	21.592
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Horizontal Angles  
 Angles

	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
<b>0</b>	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297
<b>5</b>	1248.778	1226.061	1204.158	1184.021	1162.758	1144.231	1126.674	1110.243	1095.421	1081.414
<b>10</b>	1179.501	1132.785	1086.070	1042.750	999.081	962.201	926.913	894.049	865.706	839.768
<b>15</b>	1098.971	1029.849	962.512	900.820	840.738	789.677	743.757	702.028	666.759	636.320
<b>20</b>	1011.167	920.957	837.517	763.894	694.462	638.241	588.945	545.780	510.336	478.928
<b>25</b>	907.105	807.059	714.754	637.115	566.228	510.181	463.621	424.162	393.063	367.281
<b>30</b>	798.038	693.007	600.061	523.878	457.491	407.245	367.281	334.747	310.419	290.767
<b>35</b>	682.705	581.049	493.575	425.112	369.221	326.696	295.443	270.630	252.588	238.407

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>40</b>	568.168	476.503	400.474	343.283	297.693	265.644	242.112	223.760	210.878	200.887
<b>45</b>	462.166	385.168	323.320	278.371	242.927	218.929	201.527	188.161	178.810	171.244
<b>50</b>	369.221	306.889	259.203	225.040	198.617	180.905	167.849	158.188	151.107	145.946
<b>55</b>	289.972	242.772	207.328	181.545	162.068	149.011	139.176	131.610	126.294	122.104
<b>60</b>	223.915	189.441	163.988	145.636	130.814	120.823	113.257	107.457	103.421	100.046
<b>65</b>	170.274	150.777	127.594	113.568	102.936	95.370	89.570	85.050	81.829	79.249
<b>70</b>	124.839	107.942	94.245	84.409	77.173	71.528	67.182	63.962	61.537	59.597
<b>75</b>	84.254	73.293	64.757	57.987	53.001	49.295	46.560	44.135	42.525	41.244
<b>80</b>	48.325	42.370	37.694	33.989	31.253	29.158	27.548	26.268	25.298	24.483
<b>85</b>	19.012	17.072	15.462	14.181	13.211	12.397	11.931	11.446	11.271	11.116
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert. Horizontal Angles**

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
<b>0</b>	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297	1297.297
<b>5</b>	1069.483	1059.822	1051.596	1045.000	1040.325	1037.260	1036.135
<b>10</b>	817.691	799.008	784.187	772.120	763.894	758.734	756.813
<b>15</b>	610.208	589.120	572.358	558.992	549.796	544.325	542.560
<b>20</b>	454.930	435.588	420.282	408.215	400.474	395.314	394.033
<b>25</b>	346.678	331.197	319.770	310.749	304.793	301.088	299.943
<b>30</b>	275.635	264.519	256.138	249.697	245.507	243.257	242.287
<b>35</b>	227.950	220.209	214.409	210.218	207.173	205.562	205.233
<b>40</b>	193.476	188.161	183.970	180.905	179.140	177.840	177.200
<b>45</b>	165.773	161.893	159.643	157.547	156.092	155.122	154.967
<b>50</b>	141.930	138.865	136.615	134.830	134.035	133.220	133.065
<b>55</b>	119.038	116.788	115.023	113.723	112.927	112.442	112.442
<b>60</b>	97.466	95.855	94.400	93.430	92.635	92.305	92.150
<b>65</b>	77.173	75.873	74.748	73.933	73.468	73.138	72.808
<b>70</b>	58.161	57.036	56.066	55.426	54.941	54.766	54.766
<b>75</b>	40.119	39.304	38.819	38.334	38.024	37.694	37.694
<b>80</b>	23.998	23.513	23.202	23.028	22.873	22.717	22.562
<b>85</b>	11.116	10.961	10.961	10.961	10.786	10.786	10.961
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_BX\_HO\_359\_A1.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	474.89	N.A.	14.10
0-30	1010.26	N.A.	30.00
0-40	1648.83	N.A.	49.00
0-60	2785.72	N.A.	82.70
0-80	3314.52	N.A.	98.50
0-90	3366.61	N.A.	100.00
10-90	3243.81	N.A.	96.40
20-40	1173.94	N.A.	34.90
20-50	1801.01	N.A.	53.50
40-70	1482.66	N.A.	44.00
60-80	528.80	N.A.	15.70
70-80	183.03	N.A.	5.40
80-90	52.08	N.A.	1.50
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3366.61	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	122.80
10-20	352.09
20-30	535.37
30-40	638.56
40-50	627.07
50-60	509.82
60-70	345.77
70-80	183.03
80-90	52.08
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

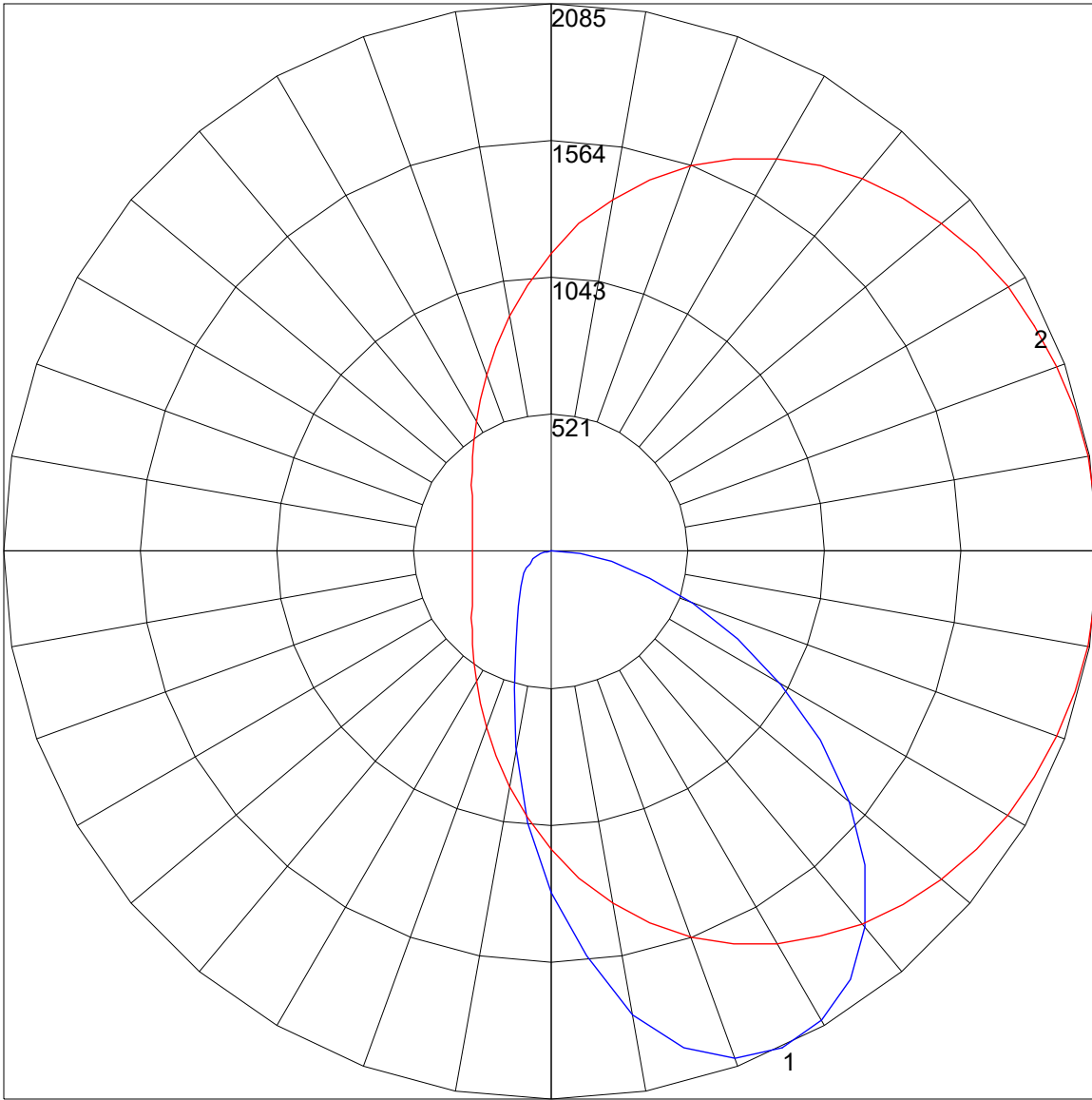
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_107\_BX\_HO\_359\_A1.IES**

**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0		
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
0	119	119	119	119	119	116	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	96	107	103	99	96	98	95	93	94	92	90	91	89	87	85	85
2	100	92	86	80	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72	72
3	91	81	74	67	67	89	80	73	67	77	71	65	74	69	64	72	67	63	61	61
4	84	72	64	57	57	82	71	63	57	69	62	56	66	60	56	64	59	55	53	53
5	77	65	56	50	50	75	64	56	50	62	54	49	60	53	48	58	52	48	46	46
6	72	59	50	44	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40	40
7	66	53	45	39	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36	36
8	62	49	40	35	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32	32
9	58	45	37	31	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29	29
10	54	41	34	28	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26	26

POLAR GRAPH



Maximum Candela = 2085.17 Located At Horizontal Angle = 0, Vertical Angle = 25  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)